

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 06-196809  
(43)Date of publication of application : 15.07.1994

(51)Int.CI. H01S 3/18

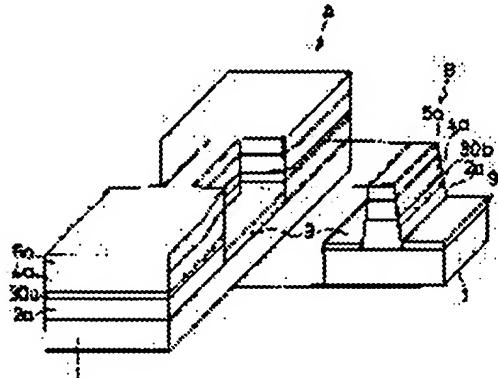
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## (54) SEMICONDUCTOR OPTICAL DEVICE AND MANUFACTURE THEREOF

### (57)Abstract:

**PURPOSE:** To obtain a semiconductor laser having an active layer, in which the laser outgoing end-face side is thinned and the inside of a laser is formed in thick layer thickness, on a flat surface having no stepped section and manufacture thereof.

**CONSTITUTION:** Two striped SiO<sub>2</sub> films 9 are formed in parallel while mutually forming a regular interval in a region positioned in a laser resonator shaped onto a GaAs substrate 1 on the GaAs substrate 1, and AlGaAs clad layers 2a are formed through an organometallic vapor growth method in an atomic-layer epitaxial mode. AlGaAs active layers 30a and 30b (the inside of a laser) are shaped through the organometallic vapor growth method in a normal mode, and AlGaAs clad layers 4a and GaAs clad layers 5a are formed through the organometallic vapor growth method in the atomic-layer epitaxial mode.



### LEGAL STATUS

[Date of request for examination] 19.12.1995  
[Date of sending the examiner's decision of rejection]  
[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]  
[Date of final disposal for application]  
[Patent number] 2726209  
[Date of registration] 05.12.1997  
[Number of appeal against examiner's decision of rejection]  
[Date of requesting appeal against examiner's decision of rejection]  
[Date of extinction of right] 05.12.2000